

03-1089
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CLAIMS

1. An apparatus comprising:

a first circuit configured to present a decoded video signal; and

5 a second circuit configured to generate (i) a first video output signal having a first resolution and (ii) a second video output signal having a second resolution in response to said decoded video signal.

2. The apparatus according to claim 1, wherein said first circuit comprises:

a decoder circuit configured to generate said decoded video signal in response to an input signal; and

5 a memory circuit configured to store said decoded video signal.

3. The apparatus according to claim 1, wherein said second circuit comprises:

a scaler circuit configured to generate a first intermediate signal and a second intermediate signal in response to
5 said decoded video signal.

4. The apparatus according to claim 3, wherein said second circuit further comprises:

5 a first video generating circuit configured to generate said first video output signal in response to said first intermediate signal; and

a second video generating circuit configured to generate said second video output signal in response to said second intermediate signal.

5. The apparatus according to claim 1, wherein said first video output signal and said second video output signal have different scales.

6. The apparatus according to claim 5, wherein said scales are predetermined to optimize said first resolution.

7. The apparatus according to claim 5, wherein said scales are predetermined to optimize said second resolution.

8. The apparatus according to claim 5, wherein said scales are predetermined to balance said first resolution and said second resolution.

9. The apparatus according to claim 5, wherein said scales are user-programmable.

10. The apparatus according to claim 9, wherein said scales are constrained according to a ratio of lines in said first video output signal and said second video output signal.

11. The apparatus according to claim 1, wherein said first video output signal and second video output signal comprise a standard definition video signal and a high definition video signal, respectively.

12. The apparatus according to claim 3, wherein said scaler is configured to generate said first intermediate signal and said second intermediate signal in response to a single reading of image data from said memory circuit.

03-1089
1496.00325

13. An apparatus comprising:
means for generating a decoded video signal; and
means for generating (i) a first video output signal
having a first resolution and (ii) a second video output signal
5 having a second resolution in response to said decoded video
signal.

14. A method for displaying video images comprising the
steps of:

(A) generating a decoded video signal; and
(B) generating (i) a first video output signal having a
5 first resolution and (ii) a second video output signal having a
second resolution in response to said decoded video signal.

15. The method according to claim 14, wherein the step
(A) comprises:
decoding said decoded video signal in response to an
input signal; and
5 storing said decoded video signal in a storage device.

03-1089
1496.00325

16. The method according to claim 14, wherein the step
(B) further comprises:

generating a first intermediate signal in response to
said decoded video data and a first scaling factor; and

5 generating a second intermediate signal in response to
said decoded video signal and a second scaling factor, wherein said
first intermediate signal and said second intermediate signal are
generated simultaneously.

17. The method according to claim 16, wherein said first
intermediate signal and said second intermediate signal are
generated with a single read of image data from said storage
device.

18. The method according to claim 16, wherein the step
(B) further comprises:

generating said first video output signal in response to
said first intermediate signal; and

5 generating said second video output signal in response to
said second intermediate signal.

19. The method according to claim 16, wherein said first scaling factor and said second scaling factor are different.

20. The method according to claim 16, wherein said first scaling factor and said second scaling factor are predetermined to optimize said first resolution.

21. The method according to claim 16, wherein said first scaling factor and said second scaling factor are predetermined to optimize said second resolution.

22. The method according to claim 16, wherein said first scaling factor and said second scaling factor are predetermined to balance said first resolution and said second resolution.

23. The method according to claim 16, wherein said first scaling factor and said second scaling factor are user-programmable.

24. The method according to claim 16, wherein said first scaling factor and said second scaling factor are constrained

03-1089
1496.00325

according to a ratio of lines in said first video output signal and
said second video output signal.